## ORGANOPHOTORECEPTOR WITH A HYDRAZONE POLYMER CHARGE TRANSPORT MATERIAL

## **ABSTRACT**

An organophotoreceptor comprises an electrically conductive substrate and photoconductive element on the electrically conductive substrate, the photoconductive element having

a) a charge transport material with the formula

$$\begin{array}{c|c} R_2 & R_1 \\ \hline Y - C = N - N - X \\ \hline \end{array}$$

where X is a linking group having the formula  $-(CH_2)_m$ -, branched or linear, where m is an integer between 0 and 20, inclusive, and one or more of the methylene groups is optionally replaced by O, S, C=O, O=S=O, a heterocyclic group, an aromatic group, urethane, urea, an ester group, a NR<sub>3</sub> group, a CHR<sub>4</sub> group, or a  $CR_5R_6$  group where  $R_3$ ,  $R_4$ ,  $R_5$ , and  $R_6$  are, independently, H, hydroxyl group, thiol group, an alkyl group, an alkaryl group, a heterocyclic group, or an aryl group;

R<sub>1</sub> and R<sub>2</sub> are independently a hydrogen, a halogen, an alkyl group, an aryl group, an alkaryl group, an aromatic group or a heterocyclic group;

Y is an aromatic group; and

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n is a distribution of integer values greater than 2; and

(b) a charge generating compound.

The charge transport material can be crosslinked with a polymer binder either directly or through a crosslinking agent.